Influence of teaching style and learning motivation towards free style capability

Mamat Heryanto, Johansyah Lubis and Abdul Sukur

Abstract
This study aims to determine the effect of teaching style and learning motivation on freestyle swimming ability. The sample of this research is 48 people who are students at SMK Pasundan 3 Cimahi City using a treatment design by 2x2 level. Data were analyzed using analysis of variance (ANAVA) and continued with the Tukey test at a significance level of $a = 0.05$. The results showed (1) There was a significant difference between the ability of free-style swimming students who were taught with inclusive teaching styles and students who were taught with reciprocal teaching styles. (2) There was an interaction between teaching style and motivation towards freestyle swimming ability. (3) There is a difference in the ability of freestyle swimming in highly motivated students using reciprocal teaching styles and inclusive teaching styles. (4) There is a difference in the ability of free style swimming in students with low motivation using reciprocal teaching styles and inclusive teaching styles.

Keywords: Ability, freestyle swimming, teaching style, learning motivation

Introduction
Everyone has different goals when doing a sports activity. For competitive sports, a person is required to have a sense of responsibility and discipline during training. This is done in order to obtain optimal results in the face of the championship. All sports have a complexity or difficulty level of movement that must be learned to get good performance and comprehensive training is needed from an early age to achieve it (Kahfi, Solihin, & Ishak, 2011) [16].

Swimming as a popular sport. Swimming is part of water sports that require swimmers to make effective and efficient movements. Swimming includes abilities that are learned in the sense that these abilities can only be mastered through the learning process and not due to the process of maturity (Harjono, 2015).

Through the right approach in swimming, feelings of self-confidence can be generated with very satisfying results. It can be said, that most people are afraid to enter or plunge into the water, but that feeling will disappear if in itself always learn and be sure to enter the water so that it will be aware of the abilities and abilities that exist in him, but must be accompanied by the help of the teacher or someone more expert who can help when the learning process is taking place. That is, the existence of motivation that increases self-confidence has a high influence in the implementation of swimming. One of the swimming learning processes is influenced by the teaching style that is conveyed, in swimming the right teaching style strongly supports the achievement of optimal learning outcomes (Hernawan et al., 2018) [14].

The process of learning swimming before learning to swim with a real style, needs to learn in advance related to the basics of swimming, namely how to regulate breathing when in water, how to float and glide on water. Breathing in water, which is how to regulate the process of taking air (breathing air above the surface of the water), and expelling air on the surface of the water or in the water. The time to breathe air is done quickly and the expenditure can be done at a slower pace than taking air. The next ability is how to float, while the floating position can be divided into 3 types, namely the upright position, face down position and supine position. Then the last ability is to glide, gliding movement can be done well if the forward obstacles are getting smaller, sliding obstacles depend on the position of the body at an angle to the surface of the water (Susanto, 2004) [34].
The existence of elements of motion in swimming is very complex, so in swimming learning it is necessary to pay attention to the right teaching style in accordance with the learning characteristics. The application of teaching styles to swimming like the reciprocal method and the inclusion method is an alternative in improving freestyle swimming skills.

Based on the above background, it can be interpreted that reciprocal teaching styles and inclusion methods are expected to be able to improve the ability of freestyle swimming. To determine which training method is better and more effective in improving the ability of freestyle swimming in students at SMK Pasundan 3 Cimahi City, it is necessary to conduct more in-depth research and study.

**Research Methods**

The method is basically the science of ways used to achieve a goal (Sugiyono: 2010) [32]. The method used in this research is experiment. Experimental research method is a research method that is used to look for the effect of treatment (treatment) specific. This research consists of dependent variables, namely the ability of freestyle swimming and the treatment independent variable, namely reciprocal teaching style (X1) and inclusive teaching style (X2) as well as moderator or attribute independent variables, namely learning motivation (X3).

The research design used was a 2x2 treatment by level design, where each independent variable was classified into 2. Treatment independent variables were classified in 2 forms of teaching style (A) reciprocal teaching style (A1) and inclusive teaching style (A2). While the independent or moderator variables are classified into two levels of motivation (B), namely high motivation (B1) and low motivation (B2). The treatment design by 2x2 level can be explained as the following table:

<table>
<thead>
<tr>
<th>Teaching Style (A)</th>
<th>Reciprocal Teaching Style (A1)</th>
<th>Teaching Style Inclusion (A2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (B1)</td>
<td>A1 B1</td>
<td>A2 B1</td>
</tr>
<tr>
<td>Low (B2)</td>
<td>A1 B2</td>
<td>A2 B2</td>
</tr>
<tr>
<td>Total</td>
<td>A1</td>
<td>A2</td>
</tr>
</tbody>
</table>

With the experimental research design treatment by level 2x2, the hypothesis testing is carried out using two-way analysis of variance (ANAVA). The normality test can use the Shapiro Wilk test technique. With the criteria if the test results show a significance value > 0.05, then the data comes from populations that are normally distributed. Hypothesis testing uses a significance level a = 0.05. Homogeneity test uses Bartlett test. With criteria, if the test results show a significance value > 0.05, then the data has a homogeneous variance. Testing on this hypothesis uses a significance level of a = 0.05. Testing the research hypothesis by using two-way analysis of variance (ANAVA) because the treatment by level design in this study is 2x2. If the results of the analysis of variance indicate there is a main effect (main effect) between the independent variables on the dependent variable and the interaction (simple effect) of the independent variables on the dependent variable then proceed with the Tukey test as a further test to determine which groups have more basic technical ability results well done at the significance level a = 0.05.

**Results and Discussion**

**Differences in the ability of freestyle swimming students who are taught with reciprocal teaching styles and students who are taught with inclusive teaching styles**

Based on a summary of the results of analytical calculations (ANAVA) at a significant level a = 0.05, sig values were obtained. (0,000) <0.05 so Ho is rejected. So it can be concluded that overall there are differences in the ability of the freestyle swimming of students who are taught with inclusive teaching styles and students who are taught with reciprocal teaching.

**Table 2: Summary of calculation results Test Anova 2 Direction level a = 0.05**

<table>
<thead>
<tr>
<th>Group Pairs Compared</th>
<th>Significance</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 B1 (P1) with A2 B1 (P2)</td>
<td>0.012</td>
<td>Significant</td>
</tr>
<tr>
<td>A1 B2 (P3) with A2 B2 (P4)</td>
<td>0.009</td>
<td>Significant</td>
</tr>
</tbody>
</table>

**The interaction between teaching style and motivation on freestyle swimming ability**

Based on the summary results of two-way analysis of variance calculations, the interaction between reciprocal teaching styles and inclusive teaching styles on free-style swimming abilities is seen in the ANAVA calculation table above. Obtained sig. (0,0 0 9) < 0.05 so that H 0 is rejected and H 1 accepted. It can be concluded that there is an interaction between reciprocal teaching style and inclusive teaching style on the ability to swim freestyle. Thus the second research hypothesis states there is an interaction between teaching style and motivation on the ability of freestyle swimming.

**Table 3: Summary of Interaction Calculation Results**

<table>
<thead>
<tr>
<th>No</th>
<th>The group being compared</th>
<th>Significance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P1 with P2</td>
<td>0.009</td>
<td>Significant</td>
</tr>
</tbody>
</table>

**The difference in freestyle swimming ability in highly motivated students uses reciprocal teaching styles and inclusive teaching styles**

Calculation of the analysis of variance with the Tukey test to compare the high motivation groups of both teaching styles refers to the opinion of Gane V.Glass. The calculation of the differences in the effect of freestyle swimming ability for high motivation groups who are trained with reciprocal and inclusive teaching styles (P3: P4). A summary of the results of the Tukey test calculation is shown in the following table:

**Table 4: Summary of Tukey Test Results for High Motivation Freestyle Ability**

<table>
<thead>
<tr>
<th>No</th>
<th>The group being compared</th>
<th>Significance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P3 with P4</td>
<td>0.012</td>
<td>Significant</td>
</tr>
</tbody>
</table>

**The difference in freestyle swimming ability in students with low motivation using reciprocal teaching styles and inclusive teaching styles**

Calculation of the analysis of variance at an advanced stage with the Tukey test to compare low motivation groups. The calculation of the differences in the effect of free style swimming ability on low motivation groups that are trained with reciprocal and inclusion teaching styles (P5: P6). A summary of the results of the Tukey test calculation is shown in the following table:
From the results of testing the four hypothesis decisions it turns out that the results indicate that hypotheses 1 (one), 2 (two), 3 (three) and 4 (four) indicate that there are statistically significant differences. On average, the inclusion teaching style score is higher on the ability of freestyle swimming for highly motivated groups.

Conclusion
Based on the results of data analysis, the results of hypothesis testing and the results of research discussions that have been obtained can conclude the following conclusions:
1. There is a difference in the ability of freestyle swimming students who are taught with inclusive teaching styles and students who are taught with reciprocal teaching styles
2. There is an interaction between teaching style and motivation on the ability to swim freestyle
3. There is a difference in the ability of freestyle swimming in highly motivated students using reciprocal teaching styles and inclusive teaching styles

There are differences in the ability of freestyle swimming in students with low motivation using reciprocal teaching styles and inclusive teaching styles.

Suggestion
Based on the conclusions and implications of the study, the suggestions in this study are:
1. For teachers, that in teaching basic freestyle swimming techniques required appropriate teaching methods so as to get good results in the learning process
2. For students who have high motivation, so that they can continue to be disciplined and routinely participate in swimming exercises to improve their swimming skills, especially freestyle swimming.
3. For other researchers who want to conduct a similar study, it is recommended to conduct research using other variables in the form of teaching styles other than reciprocity and inclusion.

References
35. Suryabrata S. Educational Psychology. Jakarta: Raja


